



## NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-219 and 72-15; NRC-2022-0192]

### Holtec Decommissioning International, LLC; Oyster Creek Nuclear Generating Station

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Exemption; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) has issued an exemption in response to an August 2, 2022 request from Holtec Decommissioning International, LLC (HDI) that would permit HDI to investigate and report to the NRC when the Oyster Creek Nuclear Generating Station does not receive notification of receipt of a shipment, or part of a shipment, of low-level radioactive waste within 90 days after transfer, instead of the 20-day investigation requirement currently delineated in the NRC's regulations.

**DATES:** The exemption was issued on December 15, 2022, and was effective upon issuance.

**ADDRESSES:** Please refer to Docket ID **NRC-2022-0192** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2022-0192**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: [Stacy.Schumann@nrc.gov](mailto:Stacy.Schumann@nrc.gov). For technical questions, contact the individual listed in the "For Further Information Contact" section of this document.

- **NRC's Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209,

301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC's PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. Eastern Time (ET), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Marlayna V. Doell, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3178; email: [Marlayna.Doell@nrc.gov](mailto:Marlayna.Doell@nrc.gov).

**SUPPLEMENTARY INFORMATION:** The text of the exemption is attached.

**Dated:** December 20, 2022.

For the Nuclear Regulatory Commission.

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**NUCLEAR REGULATORY COMMISSION**

**Docket Nos. 50-219 and 72-15**

**Holtec Decommissioning International, LLC**

**Oyster Creek Nuclear Generating Station**

**Exemption from Certain Low-Level Waste Shipment Tracking Requirements of**

**10 CFR Part 20, Appendix G, Section III.E**

**I. Background.**

The decommissioning Oyster Creek Nuclear Generating Station (Oyster Creek) facility consists of a permanently shutdown and defueled boiling-water reactor and a dry cask Independent Spent Fuel Storage Installation (ISFSI) located in the town of Forked River in Ocean County, New Jersey. By letter dated February 14, 2018 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML18045A084), Exelon Generation Company, LLC (Exelon), which was the licensee at the time, submitted certification to the U.S. Nuclear Regulatory Commission (NRC or the Commission) indicating its intention to permanently cease power operations at Oyster Creek pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.82(a)(1)(i).

By letter dated September 25, 2018 (ML18268A258), Exelon certified to the NRC that as of September 17, 2018, operations had ceased at Oyster Creek, and that pursuant to 10 CFR 50.82(a)(1)(ii) all fuel had been removed from the reactor vessel. Effective July 1, 2019, the Oyster Creek Renewed Facility Operating License (RFOL) No. DPR-16, and the general license for the Oyster Creek ISFSI were transferred from Exelon to Oyster Creek Environmental Protection, LLC (OCEP), as the licensed owner and to Holtec Decommissioning International, LLC (HDI), as the licensed decommissioning operator.

Based on the docketing of these certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, as specified in 10 CFR 50.82(a)(2), the renewed facility operating license for Oyster Creek no longer authorizes operation of the reactor or emplacement or retention of fuel in the reactor vessel. The facility is still authorized to possess and store irradiated (i.e., spent) nuclear fuel. Spent fuel is currently stored onsite at the Oyster Creek facility in the ISFSI. By letter dated May 21, 2021 (ML21160A065), HDI certified that all spent nuclear fuel assemblies were permanently transferred out of the Oyster Creek spent fuel pool and placed in storage within the onsite ISFSI.

By letter dated May 21, 2018 (ML18141A775), as supplemented by letter dated September 24, 2018 (ML18267A216), Exelon submitted to the NRC the Post-Shutdown Decommissioning Activities Report (PSDAR), including the site-specific Decommissioning Cost Estimate (DCE), for Oyster Creek, pursuant to 10 CFR 50.82, "Termination of license." The PSDAR outlined the planned decommissioning activities for Oyster Creek, and Exelon selected the SAFSTOR method for decommissioning. By letter dated September 28, 2018 (ML18275A116), HDI submitted to the NRC a revised PSDAR, including a revised site-specific DCE, for Oyster Creek, pursuant to 10 CFR 50.82(a)(7) and contingent upon NRC approval of the proposed license transfer from Exelon to HDI (ML18243A489). HDI selected the DECON method for decommissioning Oyster Creek in the revised PSDAR.

By letter dated December 17, 2018 (ML18241A068), the NRC staff found that the Exelon-submitted SAFSTOR PSDAR, as supplemented, contained the information required by 10 CFR 50.82(a)(4)(i). In that letter, the NRC staff stated that it was treating the HDI-submitted DECON PSDAR as a supplement to the Oyster Creek license transfer application until such time as the NRC made a regulatory decision regarding the license transfer application. On June 20, 2019 (ML19095A454), the NRC staff approved the Oyster Creek license transfer application and the license transfer transaction was consummated on July 1, 2019 (ML19182A342). Accordingly, the NRC staff commenced

its review of the HDI-submitted DECON PSDAR under 10 CFR 50.82(a)(4)(i). By letter dated December 5, 2019 (ML19304A079), the NRC staff found that the revised PSDAR contains the information required by 10 CFR 50.82(a)(4)(i) related to the plans for decommissioning the Oyster Creek facility.

In accordance with the revised Oyster Creek PSDAR, by the end of 2035 the licensee is expected to complete all decommissioning work necessary to obtain NRC approval to reduce the Part 50 license site footprint to the ISFSI area only and to allow partial release of the Oyster Creek site for unrestricted future use. Inherent to the plans for this decommissioning process, large volumes of low-level radioactive waste are generated. This low-level radioactive waste requires processing and disposal or only disposal. HDI will transport, by truck or by mixed mode shipments (for example, by a combination of truck and rail), low-level radioactive waste from the facility to locations such as the waste disposal facility operated by Waste Control Specialists (WCS) in Andrews, Texas and the one operated by Energy Solutions in Clive, Utah.

## **II. Request/Action.**

By letter dated August 2, 2022 (ML22214A173), HDI requested an exemption from portions of Section III.E of Appendix G, "Requirements for Transfers of Low-Level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifests," to Part 20, "Standards for Protection Against Radiation," of 10 CFR for transfers of low-level radioactive waste from the Oyster Creek facility. Section III.E requires that the shipper of any low-level radioactive waste to a licensed land disposal or processing facility must investigate and trace the shipment if the shipper has not received notification of the shipment's receipt by the disposal or processing facility within 20 days after transfer. In addition, Section III.E requires licensees to report such investigations to the NRC.

HDI is specifically requesting an exemption from the requirements in 10 CFR Part 20, Appendix G, Section III.E, under the provisions of 10 CFR 20.2301, "Applications for exemptions." HDI seeks to extend the 20 day time period for HDI to

receive notification that the shipment was received to 90 days after transfer for shipments from the Oyster Creek facility to the intended recipient, before having to investigate and report such shipments to the NRC. HDI's request states that the ability to track the location of all shipments that are in transit will remain in place, regardless of the longer transit times, and are validated daily to monitor for potential diversion of the low-level radioactive waste material. Therefore, this exemption would allow a majority of the shipments to be processed as having arrived on time, while ensuring that HDI will continue to perform an investigation and report excessively long shipments to the NRC in accordance with the intent of 10 CFR Part 20, Appendix G.

### **III. Discussion.**

#### **A. The Exemption is Authorized by Law.**

The NRC's regulations in 10 CFR 20.2301 allow the Commission to grant exemptions from the requirements of the regulations in 10 CFR Part 20 if it determines the exemption would be authorized by law and would not result in undue hazard to life or property. There are no provisions in the Atomic Energy Act of 1954, as amended (or in any other Federal statute) that impose a requirement to investigate and report on low-level radioactive waste shipments that have not been acknowledged by the recipient within 20 days of transfer. Therefore, the NRC staff concludes that there is no statutory prohibition on the issuance of the requested exemption and the NRC is authorized to grant the exemption by law.

#### **B. The Exemption Presents no Undue Hazard to Life and Property.**

The purpose of 10 CFR Part 20, Appendix G, Section III.E is to require licensees to investigate, trace, and report radioactive shipments that have not reached their destination, as scheduled, for unknown reasons. HDI states that "between December 2019 and February 2021, Oyster Creek shipped thirty-eight railcars worth of low-level radioactive waste to the WCS disposal facility in Andrews, Texas. The total transit time when the shipments were released from the Oyster Creek facility until verification of receipt, varied from thirty (30) to one hundred thirty-four (134) days." HDI's experience at

Oyster Creek demonstrates that rail and mixed mode shipments from Oyster Creek to these facilities can routinely take longer than 20 days for various reasons that cannot be anticipated nor avoided. Based on these past reports and experiences, the NRC staff concludes that delays due to rail scheduling are likely to recur.

Further, HDI notes that the requested exemption is similar to the ones previously approved by the NRC, namely: San Onofre Nuclear Generating Station on November 13, 2020 (ref. ML20287A358), Fort Calhoun Station on June 30, 2020 (ref. ML20162A155), Vermont Yankee Nuclear Power Station on February 5, 2020 (ref. ML20017A069), La Crosse Boiling Water Reactor facility on May 2, 2017 (ref. ML17124A210), and Zion Nuclear Power Station, Units 1 and 2, on January 30, 2015 (ref ML15008A417). The NRC staff reviewed these other exemption requests and notes that all of the facilities listed above are reactor facilities undergoing decommissioning. The NRC staff agrees that these exemption requests are similar to the exemption requested by HDI.

The NRC staff also notes that HDI is in the process of decommissioning Oyster Creek. During reactor decommissioning, large volumes of slightly contaminated debris are generated and require disposal. Disposal of Oyster Creek's low-level radioactive waste will require mixed mode (truck to rail to truck) shipments to waste disposal facilities or processors. Oyster Creek does not have direct rail access onsite and currently utilizes road shipments to intermodal transfer terminals for transfer of containers onto rail as the primary transport method. This transport method has the added benefit to reduce overall highway miles traveled. As decommissioning continues, an increase in truck to rail shipments is expected.

As explained by HDI, HDI takes actions during the preparation of shipments of low-level radioactive waste from Oyster Creek to predict and mitigate undesirable conditions as much as possible, but unanticipated delays can often extend the shipping duration beyond the requisite 20 days. Due to the complex scheduling and congestion on the planned rail systems, delays beyond the estimated durations are often

encountered after the waste leaves site. Rail shipments may sit at a remote railyard waiting for clearance to depart or for maintenance of a railcar in need of repair; either of which creates delays that can extend the estimated shipping durations from Oyster Creek and are outside of the shipper's (i.e., HDI's) control. Administrative processes at the disposal facility and mail delivery times can add several additional days before notification of receipt is available. HDI states that exceeding the 20-day shipment duration results in an administrative burden as a result of the required investigations and reporting, even though shipments continue to be under requisite controls.

According to HDI, low-level radioactive waste shipments from the Oyster Creek facility can take longer than 20 days to reach a waste disposal facility; however, the delay is not the result of loss, but a consequence of the complexity involved in shipping large components. In addition, the NRC staff is aware of shipping industry practices that could result in shipping durations exceeding 20 days due to issues not specifically related to the transport of large components, such as rail cars containing low-level radioactive waste waiting in switchyards to be included in a complete train to the disposal facility.

In addition, in terms of potential effects on a member of the public, the primary cause of low-level radioactive waste shipment delays is coordination with the rail carriers. When these delays happen, the shipment is generally within a railyard and not near a member of the public or a public place. The only way a low-level radioactive waste shipment would remain in a public place for an unusual amount of time is if there was a problem with the transport vehicle or the rail system itself. In that instance, the NRC staff notes that all low-level radioactive waste shipments from Oyster Creek are required to be compliant with the U.S. Department of Transportation (DOT) and NRC requirements for transportation of low-level radioactive packaging, placarding, and allowable radiation levels at the surface of the package for health and safety purposes during transit, including during switchyard staging. Furthermore, the shipments are required to be under control of the shipper at all times, tracked by the licensee, and



periodically monitored by the licensee, as needed. Therefore, there are no potential health and safety concerns associated with this material sitting in a switchyard for an extended period of time. In the unlikely event that a low-level waste shipment were to remain in a public place for an extended period of time, adherence to the DOT transportation requirements would also ensure that there would be no health and safety concerns regarding potential dose to the public.

Based on the history of low-level radioactive waste shipments from Oyster Creek and the lack of potential health and safety concerns associated with this material sitting in a switchyard for extended period of time, the need to investigate, trace, and report on low-level radioactive waste shipments that take longer than 90 days is therefore appropriate.

As indicated in the request for exemption, for rail and truck shipments from Oyster Creek, HDI will use a tracking system that allows daily monitoring of a shipments' progress to its destination and the Oyster Creek shipping procedures prescribe the expectations for tracking and communications during transit. The NRC staff believes these steps will allow for monitoring the progress of the shipments by the rail or truck carrier on a daily basis, if needed, in lieu of the 20-day requirement and will initiate an investigation as provided for in Section III.E of Appendix G to 10 CFR Part 20 after 90 days. Because of the oversight and ability to monitor low-level radioactive waste shipments throughout the entire journey from Oyster Creek to a disposal or processing site as noted above, the NRC staff concludes that it is unlikely that a shipment could be lost, misdirected, or diverted without the knowledge of the carrier or HDI and there is no potential health and safety concern presented by the requested exemption. Furthermore, by extending the elapsed time for receipt acknowledgment to 90 days before requiring investigations, tracing, and reporting, a reasonable upper limit on shipment duration is maintained if a breakdown of normal tracking systems were to occur.

Consequently, the NRC staff finds that extending the receipt of notification period from 20 to 90 days after transfer of the low-level radioactive waste as described by HDI in its August 2, 2022, letter would not result in an undue hazard to life or property.

**C. The Exemption is Subject to a Categorical Exclusion**

With respect to compliance with Section 102(2) of the National Environmental Policy Act, 42 USC 4332(2) (NEPA), the NRC staff has determined that the proposed action, the approval of the HDI exemption request, is within the scope of the categorical exclusion listed at 10 CFR 51.22(c)(25). The proposed action presents (i) no significant hazards considerations; (ii) would not result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) would not result in a significant increase in individual or cumulative public or occupational radiation exposure; (iv) has no significant construction impact; (v) does not present a significant increase in the potential for or consequences from radiological accidents. The requirements from which an exemption is sought involves reporting requirements under 10 CFR 51.22(c)(25)(vi)(B) as well as inspection or surveillance requirements under 10 CFR 51.22(c)(25)(vi)(C). Given the applicability of relevant categorical exclusions, no further analysis is required under NEPA.

**IV. Conclusions.**

Accordingly, the Commission has determined that, pursuant to 10 CFR 20.2301, the exemption is authorized by law and will not result in undue hazard to life or property. Therefore, effective immediately, the Commission hereby grants HDI an exemption from 10 CFR Part 20, Appendix G, Section III.E to extend the receipt of notification period from 20 days to 90 days after transfer of low-level radioactive waste shipments from the Oyster Creek Nuclear Generating Station facility to a licensed land disposal or processing facility.

Dated this 15th day of December, 2022

For the Nuclear Regulatory Commission.

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Jane E. Marshall, Director,  
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